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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/623,427	11/22/2000	David Charles C. Hinde	PM271885	5030

7590 01/15/2003

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EXAMINER

SERGENT, RABON A

ART UNIT PAPER NUMBER

1711

DATE MAILED: 01/15/2003

1d

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.  
09/623,427

Hinde et al.

Examiner  
Rabon Sergent

Art Unit  
1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on Aug 13, 2002

2a)  This action is FINAL. 2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

### Disposition of Claims

4)  Claim(s) 1-23, 25-27, and 29-49 is/are pending in the application.

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-23, 25, 30-45, 47, and 48 is/are rejected.

7)  Claim(s) 26, 27, 29, 46, and 49 is/are objected to.

8)  Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13)  Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some\* c)  None of:

1.  Certified copies of the priority documents have been received.
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1)  Notice of References Cited (PTO-892) 4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

2)  Notice of Draftsperson's Patent Drawing Review (PTO-948) 5)  Notice of Informal Patent Application (PTO-152)

3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6)  Other: \_\_\_\_\_

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-23, 25, 30-45, 47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomaides et al. ('840) in view of Markush et al. ('852).

Thomaides et al. disclose the production of water soluble films from polyurethane aqueous dispersions. The polyurethane dispersions are produced by incorporating potential ionic hydrophilic groups into the polyurethane and neutralizing them with a base to yield an ionic group containing polyurethane which readily disperses in water. Thomaides et al. further provide important guidance at column 2, lines 55+, wherein patentees state that difunctional reactants

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must be used in order to prevent crosslinking. Additionally, patentees disclose at column 5, lines 40+ that the flexibility of the film may be controlled by judicious selection and application of the neutralizing base.

3. Though Thomaides et al. disclose the use of ethylene oxide containing reactants, including those that have molecular weights that significantly overlap those of applicants, patentees fail to describe that the use of such reactants will contribute nonionic hydrophilic groups to the polyurethane. Furthermore, Thomaides et al. fail to disclose the use of a prepolymer process to produce the polyurethane aqueous dispersion. However, the use of the oxyethylene groups to contribute hydrophilic and water dispersible characteristics to polyurethanes and the use of prepolymer processes to produce them was known at the time of invention. This position is supported by the detailed description of Markush et al.

4. Therefore, the position is taken that one of ordinary skill in the art seeking a water soluble polyurethane would have been motivated to follow the teachings of the primary reference and further to incorporate known techniques for producing enhanced water dispersible polyurethanes, as taught by Markush et al., into the teachings of the primary reference, so as to arrive at the instant invention.

5. The examiner has carefully considered applicants' remarks of February 28, 2002 and has reviewed the relied upon prior art, and as a result, the rejection has been withdrawn with respect

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to the claims drawn to water soluble packaging. Initially, it is noted that arguments pertaining to the use of films as water soluble packaging are considered to be relevant to the claims so limited. Furthermore, applicants' arguments with respect to the prior art films lacking cold water solubility and flexibility are not well taken. It appears that the prior art films and instant films contain equivalent hydrophilic groups in overlapping contents and it is noted that the prior art specifically teaches against the use of higher than difunctional reactants, which would produce crosslinks; therefore, one would expect the respective films to have similar, if not equivalent, solubility and flexibility characteristics. Applicants have provided no evidence to support their position that this would not be the case. As aforementioned, Thomaides et al. disclose one means of controlling flexibility. Lastly, with respect to Markush et al., this reference has been relied upon to provide generic teachings with respect to the production of aqueous polyurethane dispersions containing oxyethylene groups from prepolymeric systems.

6. Claims 26, 27, 29, 46, and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

  
**RABON SERGENT**  
**PRIMARY EXAMINER**

R. Sergent

January 11, 2003